

A1 substances are permanently incorporated in the body of the film in the solidified state to modify selected characteristics of the film.

A2 12. (amended) The method according to claim 1 wherein said active substance comprises a material that reacts when subsequently exposed to a selected treatment.

Remarks

Reconsideration and allowance of the present application in view the foregoing amendments and following remarks is respectfully requested.

The Examiner has rejected claim 12 under Section 112, first paragraph as unclear for use of the phraseology "said active substance renders said film usable for 'smart' packagings.". Claim 12 has been amended to address the examiner's concern and the rejection is believed to be overcome.

The Examiner has rejected claims 1-3 as anticipated under Section 102(b) by the Siol, U.S. Patent No. 4,814,207 reference.

The Examiner has also rejected claims 1-3 and 6 as obvious under Section 103(a) over the Siol, U.S. Patent No. 4,814,207 reference. The Examiner has also rejected claims 1-16 as obvious over this same reference in further view of the statement/description of the prior art in the Background section of the specification of this application at Pages 1 and 2.

Section 102 and 103 rejections based on U.S. 4,814,207 (Siol)

The Examiner has rejected claims 1-16 under either Section 102 or Section 103 based on this primary reference.

Siol (U.S. 4,184,207) describes a chemical polymerization method for deposition of co-monomers on the surface of bodies having an already stabilized shape, and, a subsequent heat treatment step for polymerization of the surface deposited co-monomers. In order to maintain a stable system, the body has to be cooled down (after the extrusion process), then it has to be coated with the co-monomers and then polymerization has to

be carried out by means of heating in the absence of UV light. Siol (U.S. 4,184,207) is restricted to a superficial layer of radical initiated co-polymerized monomers on a single surface of a shaped body such that the co-monomers are capable of undergoing a radical initiated reaction with each other upon a subsequent heat treatment and cooling period to form a superficial layer. A scratch or weather resistant layer of cured co-polymer is thus formed on the surface of the stable body.

There are very different interactions occurring between the plastic bulk and the active substances as between the present invention and the process described in the Siol reference. The Siol reference makes a single, vague statement in passing that the co-monomer coating can be applied directly after the extrusion process. However, there is no disclosure about the molten state of the extruded body, nor about its temperature (i.e. higher than the glass transition temperature or the room temperature), and, there is the explicit requirement that the deposition must allow for co-polymerization and curing upon heat treatment and cooling. This process, as described, suggests to a person skilled in the art that the co-monomers are deposited as a superficial layer of homogeneous molecules, in immediate molecular level adjacency to each other to enable chemical reaction between the co-monomers such that the co-monomer molecules will react when heat treatment is applied. And, a subsequent cooling period is required for curing. That is, the Siol process requires a radical transfer between co-monomers where the molecules are physically adjacent to other to ensure propagation of radical polymerization between physically adjacent co-monomer molecules.

The present invention calls for distributing at least one active substance on at least one face of the film in a region of the film having a temperature higher than the ambient temperature such that the active substance(s) penetrate into and are retained within the film to form a single body of film. A wide range of completely different substances can be applied for incorporation into the film emerging from the extruder nozzle in a melted state.

The intention and teaching of Siol (U.S. 4,184,207) is the enablement of co-monomer polymerization conditions on one surface of a stable body. To modify or read into the Siol reference the steps of the presently claimed invention, would defeat the intended function and disclosure of Siol. In Re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984); In Re Haruna, 249 F.3d 1327, 58 U.S.P.Q. 1517 (Fed. Cir.

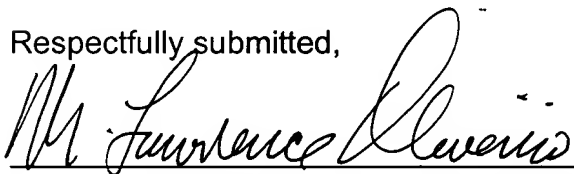
2001). Without an explicit teaching consistent with the intention of Siol taken in its entirety, a finding of anticipation or obviousness based on the disclosure of Siol would be improper. In re Lee, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). An anticipating reference must disclose an enabling disclosure of the claimed invention. The disclosure of Siol calls for radical initiated polymerization on a surface. There is no enablement of the presently claimed invention disclosed in Siol. There is only an enabling disclosure of a surface layer formable by polymerization on a stable body surface. A sufficient degree of precision in the disclosure of a claimed process or product must be present in a prior art reference in order for a finding of anticipation. In Re Westphal, (Bd. Case No. 06/873,863, 1993), aff'd 989 F.2d 1203 (Fed. Cir 1993). The Siol reference does not have anywhere near sufficient precision in its disclosure to be found to anticipate the presently claimed invention; its clear intention is contrary to the present invention.

Conclusion

Reconsideration of the present application and withdrawal of the outstanding rejections is respectfully requested in view of the present amendments and remarks.


If the Examiner believes that a teleconference would expedite resolution of any matter with regard to the present Application, the examiner is respectfully invited to call the Applicants' attorney at the number listed below. If any fees beyond the fees submitted concurrently with this Amendment and Response are required for any reason, all such fees may be charged to the account of the undersigned, Deposit Account No. 02-3038.

Respectfully submitted,



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Date:



Version Marked to Show Changes

In the claims:

1. (amended) A method for producing a plastic film having improved characteristics, comprising forming the plastic film by extrusion from an extruder nozzle, the film emerging from the nozzle in a melted state, distributing at least one active substance on at least one face of the film, in a region of the film having a temperature higher than the ambient temperature such that the active substances penetrate into and are retained within the film to form a single body of film, cooling the film downstream of the extruder nozzle to a solidified state at ambient temperature wherein the one or more substances are permanently incorporated in the body of the film in the solidified state to modify selected characteristics of the film. [at least one step of treating an extruded plastic film formed with an extruder, downstream of the extruder, by distributing at least one active substance on at least one face of the film, in a region of the film having a temperature higher than the ambient temperature, thereby said active substance interacts with said extruded film by aggregating with and/or penetrating said film, to modify its characteristics.]

12. (amended) The method according to claim 1 wherein said active substance comprises a material that reacts when subsequently exposed to a selected treatment. [renders said active substance usable for “smart” packagings.]